

# इंटरनेट

# मानक

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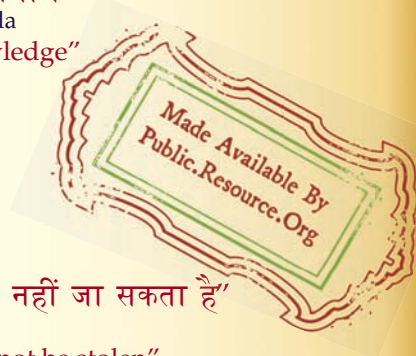
IS 8023 (1991): Gauges - Single ended progressive type plate snap gauges (up to 160 mm) [PGD 25: Engineering Metrology]



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भारतीय मानक

गेज — एक तरफ से प्रयुक्त बढ़ते क्रम के प्लेट स्नैप गेज  
( 160 मि०मी० तक ) — विशिष्ट

( पहला पुनरीक्षण )

*Indian Standard*

GAUGES — SINGLE ENDED PROGRESSIVE  
TYPE PLATE SNAP GAUGES ( UP TO 160 mm ) —  
SPECIFICATION

( *First Revision* )

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BUREAU OF INDIAN STANDARDS  
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## FOREWORD

This Indian Standard ( First Revision ) was adopted by the Bureau of Indian Standards, after the draft finalized by the Engineering Metrology Sectional Committee had been approved by the Light Mechanical Engineering Division Council.

This standard was originally published in 1976. This first revision has been brought out in the light of the current manufacturing practices followed in the country. Following changes have been made:

- a) Thickness of gauges in Tables 1, 2 and 3 has been changed;
- b) Some overall dimensions of gauges in Tables 1, 2 and 3 have been altered;
- c) The maximum range of snap gauges has been restricted to 160 mm as against 250 mm in earlier standard to bring in line with corresponding DIN and BS specifications; and
- d) Alternate design for plate type snap gauges is included for 100 mm to 160 mm in line with corresponding BS specification.

In the formulation of this standard, assistance has been derived from the following publications:

- a) DIN 2235 : 1955 'Limit snap gauges ( made of steel plate from 2 to 160 mm nominal size )', issued by Deustches Institut für Normung ( Germany ).
- b) BS 1044 ( Part 1 ) : 1964 'Specification for gauge blanks: Part 1 Plug, ring and calliper gauges', issued by British Standards Institution ( BSI ).

# Indian Standard

## GAUGES — SINGLE ENDED PROGRESSIVE TYPE PLATE SNAP GAUGES ( UP TO 160 mm ) — SPECIFICATION

( First Revision )

### 1 SCOPE

This standard covers requirements for single ended progressive type plate snap gauges up to 160 mm.

### 2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
3455 : 1971	Gauging practice for plain workpieces ( <i>first revision</i> )
7018 ( Part 1 ) : 1983	Technical supply conditions for gauges: Part 1 General ( <i>first revision</i> )

### 3 DIMENSIONS AND TOLERANCES

The shapes and dimensions of the progressive type plate snap gauges shall be as given in Fig. 1 and Tables 1 to 4.

**3.1** The tolerances on the gauging dimensions of progressive type plate snap gauges shall be in accordance with IS 3455 : 1971.

**3.2** Width of the relief groove shall be 2 mm approximately.

NOTE — Suitable holes may be drilled to reduce the weight of the blank.

### 4 GENERAL REQUIREMENTS

Shall be according to IS 7018 ( Part 1 ) : 1983.

### 5 DESIGNATION

Shall include :

- nominal size,
- tolerance of the workpiece to be gauged, and
- number of this standard.

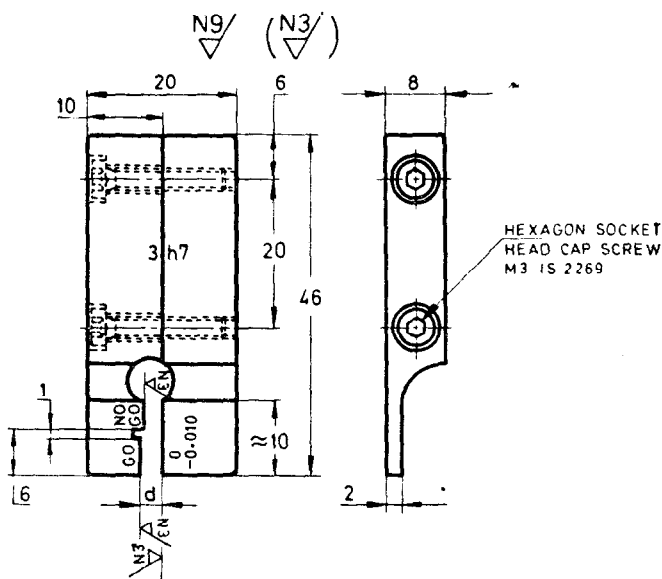
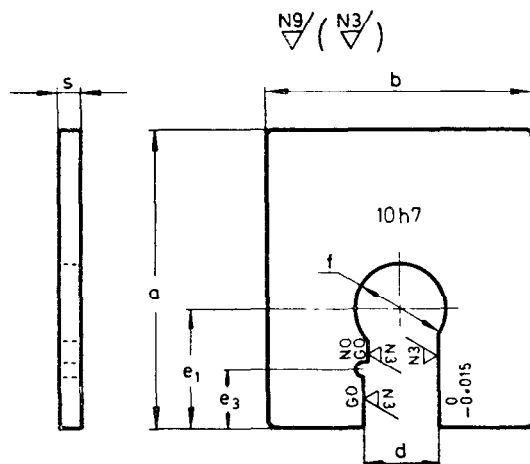


FIG. 1 DIMENSIONS FOR SINGLE ENDED PROGRESSIVE TYPE PLATE  
SNAP GAUGES ( SIZE UP TO  $d = 3$  mm )

**Table 1   Dimensions for Single Ended Progressive Type Plate Snap Gauges ( Size Range Over 3 up to 10 mm )**

( Clause 3 )

All dimensions in millimetres.

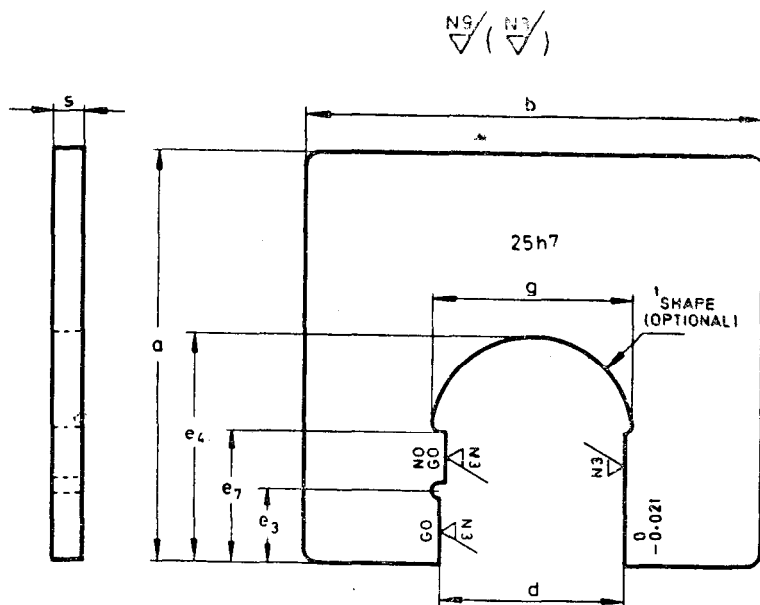


Size Range $d$		$a$	$b$	$e_1$	$e_3$	$f$	$s$
Over	Up to						
3	6	36	25	14	7	8	6
6	10	40	35	16	8	12	6

**Table 2 Dimensions for Single Ended Progressive Type Plate Snap Gauges ( Size Range Over 10 up to 50 mm )**

( Clause 3 )

All dimensions in millimetres.

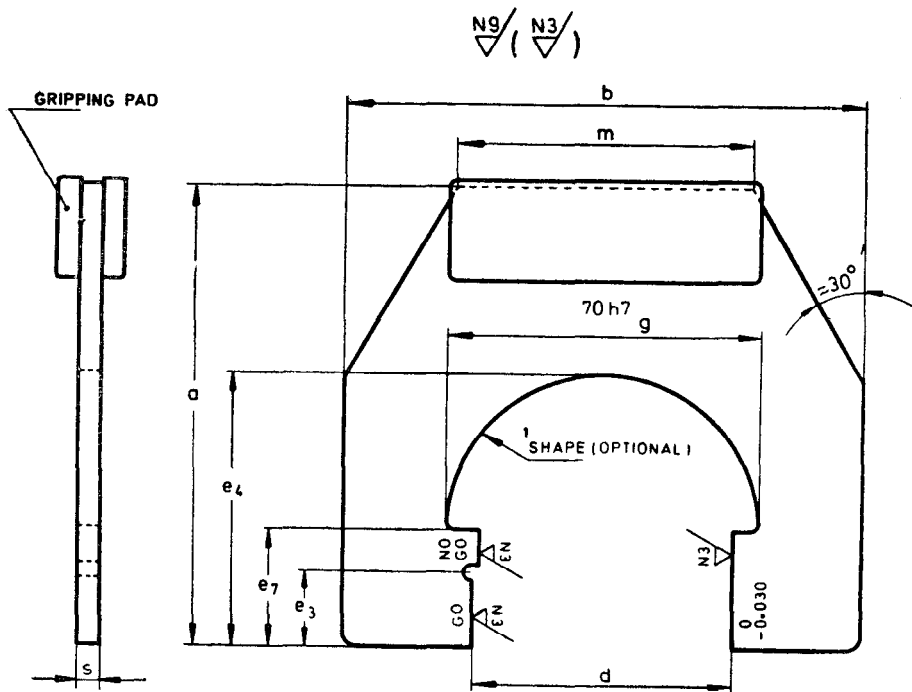


**1 Dimensions given are to be maintained.**

Size Range $d$		$a$	$b$	$e_3$	$e_4$	$e_7$	$g$	$s$
Over	Up to							
10	16	48	50	10	27	18	18	6
16	25	56	60	10	31	18	27	6
25	32	67	73	12	37	20	34	9
32	40	73	85	14	43	22	42	9
40	50	85	98	16	51	25	52	9

Table 3   Dimensions of Single Ended Progressive Type Plate Snap  
Gauges ( Size Range Over 50 up to 160 mm )  
( Clause 3 )

All dimensions in millimetres.



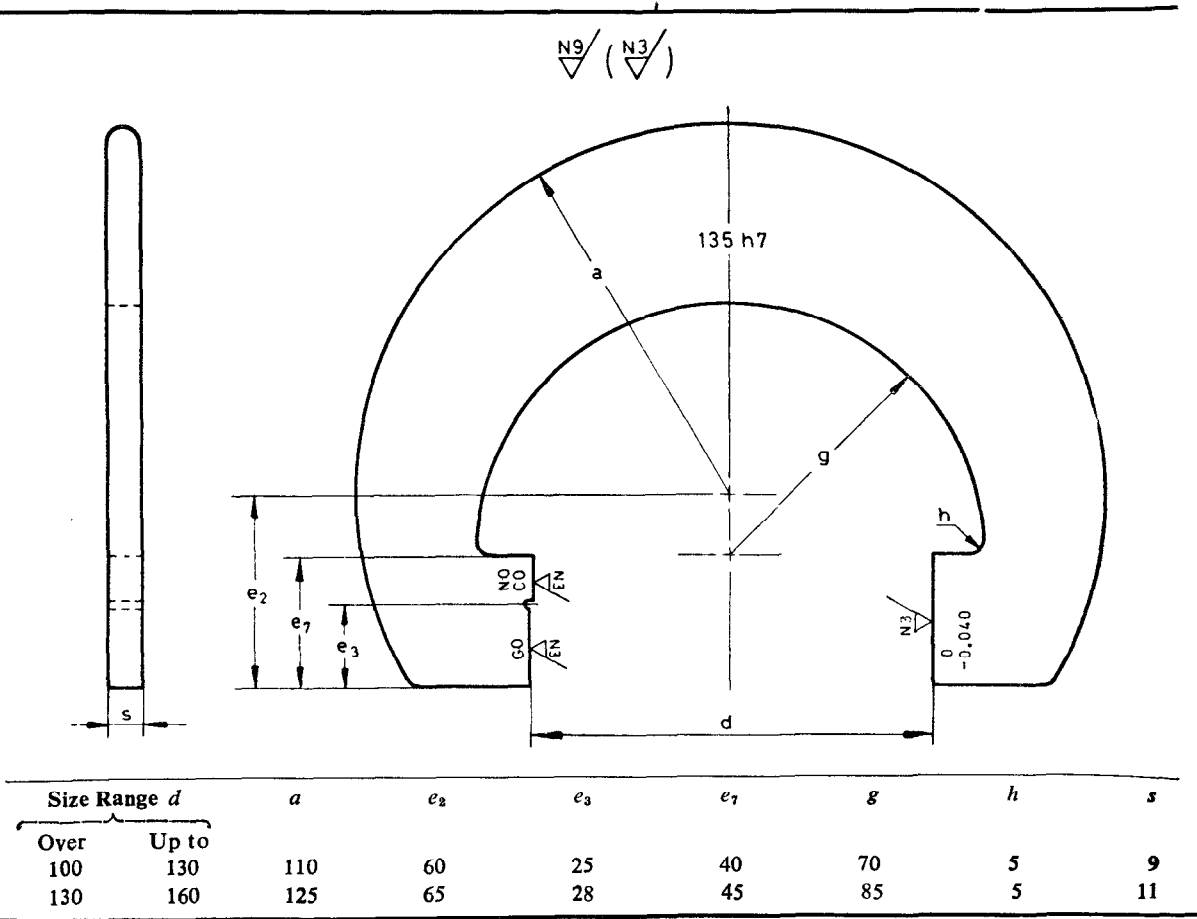
1 Dimensions given are to be maintained.

Size Range <i>d</i>		<i>a</i>	<i>b</i>	<i>e<sub>3</sub></i>	<i>e<sub>4</sub></i>	<i>e<sub>7</sub></i>	<i>g</i>	<i>m</i>	<i>s</i>
Over	Up to								
50	63	98	112	18	61	28	66	70	9
63	70	112	123	20	69	32	73	70	9
70	80	123	140	20	74	32	84	80	9
80	90	140	148	22	83	36	94	80	9
90	100	148	180	22	88	36	104	90	9
100	112	148	200	22	95	36	120	150	9
112	125	148	225	22	102	36	135	150	9
125	140	148	250	22	110	36	150	150	9
140	160	148	250	22	120	36	170	150	9



Table 4 Dimensions for Alternative Design of Single Ended Progressive Type Plate Snap Gauges ( Size Range from 100 to 160 mm )  
( Clause 3 )

All dimensions in millimetres.



**Example:**

A single ended progressive type plate snap gauge for gauging a shaft of diameter 60 mm having tolerance h7 shall be designated as:

Plate Snap Gauge IS 8023 60 h7

**6 MARKING**

**6.1** The plate snap gauges shall be marked with the following:

a) Nominal size,

b) Class of tolerance,

c) The words 'GO' and 'NO GO',

d) Work limit of the workpiece for the 'GO' side and the 'NO GO' side, and

e) Indication of source of manufacturer.

**6.2** Other markings shall be according to IS 7018 ( Part 1 ) : 1983.

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